

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-004213**Date Inspected:** 24-Sep-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower & OBG**Summary of Items Observed:**

The Caltrans Quality Assurance (QA) Inspector Charlie Franco was present at the time requested to randomly observe welding and associated operations being performed for the Tower and Orthotropic Box Girders (OBG).

OBG Bay 1:

The QA Inspector randomly observed a ZPMC magnetic drill operator drilling bolt holes in OBG U-Rib connection plates.

The QA Inspector randomly observed ZPMC welder Dong Yiqun 059450, utilizing the Flux Cored Arc Welding (FCAW) Process in the 3F (Vertical Fillet) Position with ZPMC Weld Procedure Specification (WPS) WPS-B-T-2133, to weld 8 millimeter (mm) internal diaphragms to U-Ribs for Deck Plate DP227-001 at Weld Joint (WJ) Numbers 147, 156, 165, 174 and 183. The QA Inspector randomly observed ZPMC QC under the supervision of ZPMC CWI Sun Wei, monitoring weld parameters. The weld parameters appeared to comply with contract requirements. The attached photograph provides additional detail.

OBG Bay 2:

The QA Inspector randomly observed 4 ZPMC magnetic drill operators drilling bolt holes through templates, in OBG stiffener connection plates.

OBG Bay 3:

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The QA Inspector randomly observed ZPMC welder Shi Wei 053859, utilizing the Shielded Metal Arc Welding (SMAW) Process in the 2F (Horizontal Fillet) Position with ZPMC Weld Procedure Specification (WPS) WPS-2112-FCM, to tack weld T-Ribs to Side Plate SP340-001 Weld Joint (WJ) Numbers 013/014. The QA Inspector randomly observed ZPMC QC under the supervision of ZPMC CWI Chen Chih Chien, monitoring weld parameters. The weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed ZPMC welder Sun Zuo Wen 048920, utilizing the SMAW Process in the 2F (Horizontal Fillet) Position with ZPMC WPS WPS-2112-FCM, to tack weld T-Ribs to Side Plate SP312-001 WJ 019. The QA Inspector randomly observed ZPMC QC under the supervision of ZPMC CWI Chen Chih Chien, monitoring weld parameters. The weld parameters appeared to comply with contract requirements.

OBG Bay 4:

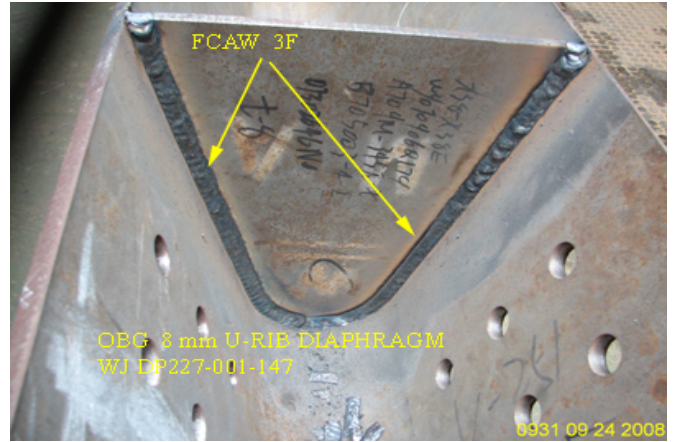
The QA Inspector randomly observed ZPMC welders Wang Jian ID Number 067081 and Lv Peng ID Number 048617, utilizing the SMAW Process in the 4G (Overhead Groove) Position with ZPMC WPS WPS-B-T-3314 to weld Web Plate piece mark p474 to 23M (N) Bottom Tower Diaphragm SA261 at WJ's NSD1-SA333B/B-11/12. The QA Inspector randomly observed ZPMC QC under the supervision of ZPMC CWI Yu Dong Ping monitoring weld parameters. The weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed ZPMC welder Gu Cai Hong ID Number 053748, utilizing the Submerged Arc Welding SAW Process in the 1G(Flat Groove) Position with ZPMC WPS WPS-B-T-2321-B-U3c-S-1, to weld the butt splice between piece marks p323 and SA404 of 53M Lower Tower Diaphragm SA404 at WJ ESD1-SA404-1A. The QA Inspector randomly observed ZPMC QC under the supervision of ZPMC CWI Yu Dong Ping, monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: 614 amps, 30.2 volts with a travel speed of 490 mm per minute. The weld parameters appeared to comply with contract requirements. The attached photograph provides additional detail.

The QA Inspector randomly observed ZPMC welders Li Zheng Xu ID 066179 and Zhang Quan Fa ID 066326, utilizing the SMAW Process in the 2G (Horizontal Groove) Position with ZPMC WPS WPS-B-T-3312 to weld Web Plate piece mark p243 to 23M (W) Bottom Tower Diaphragm SA238 at WJ WSD1-SA238B/B-11/12. The QA Inspector randomly observed ZPMC QC under the supervision of ZPMC CWI Yu Dong Ping monitoring weld parameters. The weld parameters appeared to comply with contract requirements.

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Summary of Conversations:

As noted in the above body of this report.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Ady Velasco 13816942685, who represents the Office of Structural Materials for your project.

Inspected By: Franco,Charlie

Quality Assurance Inspector

Reviewed By: Wright,Mark

QA Reviewer